

## ENTERED

RAW SEQUENCE LISTING

DATE: 04/08/2002

PATENT APPLICATION: US/10/088,726

TIME: 13:34:13

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3 <110> APPLICANT: Matsumoto et al.
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5 <120> TITLE OF INVENTION: NOVEL GUANOSINE TRIPHOSPHATE-BINDING PROTEIN-COUPLED

## RECEPTORS AND GENES

THEREOF, AND PRODUCTION AND USES THEREOF 6

8 <130> FILE REFERENCE: 62514

C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/088,726

- C--> 11 <141> CURRENT FILING DATE: 2002-03-22
  - 13 <150> PRIOR APPLICATION NUMBER: PCT/JP00/09408
  - 14 <151> PRIOR FILING DATE: 2000-12-28
  - 16 <150> PRIOR APPLICATION NUMBER: JP 1999-375152
  - 17 <151> PRIOR FILING DATE: 1999-12-28
  - 19 <150> PRIOR APPLICATION NUMBER: JP 2000-101339
  - 20 <151> PRIOR FILING DATE: 2000-03-31
  - 22 <160> NUMBER OF SEO ID NOS: 63
  - 24 <170> SOFTWARE: PatentIn Ver. 2.1
  - 27 <210> SEQ ID NO: 1
  - 28 <211> LENGTH: 371
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  - 39 Thr Glu Val Val Glu Gly Lys Glu Trp Gly Ser Phe Tyr Tyr Ser Phe
    - 40
  - 42 Lys Thr Glu Gln Leu Ile Thr Leu Trp Val Leu Phe Val Phe Thr Ile
  - 43 55
  - 45 Val Gly Asn Ser Val Val Leu Phe Ser Thr Trp Arg Arg Lys Lys Lys
  - 70 75
  - 48 Ser Arg Met Thr Phe Phe Val Thr Gln Leu Ala Ile Thr Asp Ser Phe
  - 85 90
  - 51 Thr Gly Leu Val Asn Ile Leu Thr Asp Ile Asn Trp Arg Phe Thr Gly 52 100 105 110
  - 54 Asp Phe Thr Ala Pro Asp Leu Val Cys Arg Val Val Arg Tyr Leu Gln 120
  - 57 Val Val Leu Leu Tyr Ala Ser Thr Tyr Val Leu Val Ser Leu Ser Ile
  - 135 140 60 Asp Arg Tyr His Ala Ile Val Tyr Pro Met Lys Phe Leu Gln Gly Glu
  - 61 145 150 155 63 Lys Gln Ala Arg Val Leu Ile Val Ile Ala Trp Ser Leu Ser Phe Leu
  - 165 170 66 Phe Ser Ile Pro Thr Leu Ile Ile Phe Gly Lys Arg Thr Leu Ser Asn
  - 180 185

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Output Set: N:\CRF3\04082002\J088726.raw

69 Gly Glu Val Gln Cys Trp Ala Leu Trp Pro Asp Asp Ser Tyr Trp Thr 200 195 72 Pro Tyr Met Thr Ile Val Ala Phe Leu Val Tyr Phe Ile Pro Leu Thr 75 Ile Ile Ser Ile Met Tyr Gly Ile Val Ile Arg Thr Ile Trp Ile Lys 230 235 78 Ser Lys Thr Tyr Glu Thr Val Ile Ser Asn Cys Ser Asp Gly Lys Leu 245 250 81 Cys Ser Ser Tyr Asn Arg Gly Leu Ile Ser Lys Ala Lys Ile Lys Ala 260 265 84 Ile Lys Tyr Ser Ile Ile Ile Ile Leu Ala Phe Ile Cys Cys Trp Ser 275 280 87 Pro Tyr Phe Leu Phe Asp Ile Leu Asp Asn Phe Asn Leu Leu Pro Asp 295 300 90 Thr Gln Glu Arg Phe Tyr Ala Ser Val Ile Ile Gln Asn Leu Pro Ala 310 315 93 Leu Asn Ser Ala Ile Asn Pro Leu Ile Tyr Cys Val Phe Ser Ser Ser 325 330 96 Ile Ser Phe Pro Cys Arg Glu Gln Arg Ser Gln Asp Ser Arg Met Thr 345 99 Phe Arg Glu Arg Thr Glu Arg His Glu Met Gln Ile Leu Ser Lys Pro 100 355 360 102 Glu Phe Ile 370 106 <210> SEQ ID NO: 2 107 <211> LENGTH: 363 108 <212> TYPE: PRT 109 <213> ORGANISM: Homo sapiens 111 <400> SEQUENCE: 2 112 Met Gly Pro Gly Glu Ala Leu Leu Ala Gly Leu Leu Val Met Val Leu 5 10 115 Ala Val Ala Leu Leu Ser Asn Ala Leu Val Leu Cys Cys Ala Tyr 20 25 118 Ser Ala Glu Leu Arg Thr Arg Ala Ser Gly Val Leu Leu Val Asn Leu 121 Ser Leu Gly His Leu Leu Leu Ala Ala Leu Asp Met Pro Phe Thr Leu 55 124 Leu Gly Val Met Arg Gly Arg Thr Pro Ser Ala Pro Gly Ala Cys Gln 70 127 Val Ile Gly Phe Leu Asp Thr Phe Leu Ala Ser Asn Ala Ala Leu Ser 8.5 130 Val Ala Ala Leu Ser Ala Asp Gln Trp Leu Ala Val Gly Phe Pro Leu 100 105 133 Arg Tyr Ala Gly Arg Leu Arg Pro Arg Tyr Ala Gly Leu Leu Leu Gly 115 120 136 Cys Ala Trp Gly Gln Ser Leu Ala Phe Ser Gly Ala Ala Leu Gly Cys 135 139 Ser Trp Leu Gly Tyr Ser Ser Ala Phe Ala Ser Cys Ser Leu Arg Leu 150 155

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Output Set: N:\CRF3\04082002\J088726.raw

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143	PIO	PIO	GIU	PIO	165	MIY	PIO	ATY	rne	170	Ата	PHE	1111	Ala	175	ьeu
	His	Ala	Val	Glv		Va1	Leu	Pro	Len		Va1	Len	Cvs	Leu		Ser
146	пто	1114	· ·	180	1110	, 41	LCu	110	185	1114	,	Dea	0,0	190		DCI
	Len	Gln	Va1		Ara	Va1	Ala	Ara		His	Cvs	Gln	Ara	Met		Thr
149		0	195		3			200	*** 9		0,0	V-11	205		110 P	
		Thr		Lvs	Ala	T.em	Ala		Len	Ala	Asp	Len		Pro	Ser	Val
152		210		2,0		Lou	215	200				220			001	
_	Ara		Ara	Cvs	Leu	Tle		Gln	Lvs	Ara	Ara		His	Arg	Ala	Thr
	225	0	5	0,10		230	<b>V</b>		-1-	5	235	3		5		240
		Lvs	Ile	Glv	Ile		Ile	Ala	Thr	Phe	Leu	Ile	Cvs	Phe	Ala	Pro
158	,			1	245					250			- 1		255	
160	Tyr	Val	Met	Thr	Arg	Leu	Ala	Glu	Leu	Val	Pro	Phe	Val	Thr	Val	Asn
161	•			260	-				265					270		
163	Ala	Gln	Trp	Gly	Ile	Leu	Ser	Lys	Cys	Leu	Thr	Tyr	Ser	Lys	Ala	Val
164			275					280	-			-	285	-		
166	Ala	Asp	Pro					Leu	Leu	Arq	Arg	Pro	Phe	Arg	Gln	Val
167		290				-	295			_		300		_		
169	Leu	Ala	Gly	Met	Val	His	Arg	Leu	Leu	Lys	Arg	Thr	Pro	Arg	Pro	Ala
170	305		_			310					315					320
172	Ser	Thr	His	Asp	Ser	Ser	Leu	Asp	Val	Ala	Gly	Met	Val	His	Gln	Leu
173					325					330					335	
175	Leu	Lys	Arg	Thr	Pro	Arg	Pro	Ala	Ser	Thr	His	Asn	Gly	Ser	Val	Asp
176				340					345					350		
	Thr	Glu	Asn	Asp	Ser	Cys	Leu	Gln	Gln	Thr	His					
179			355					360								
		)> SI														
		l> Li			L9						•					
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	<213> ORGANISM: <400> SEQUENCE:					sap	piens	3								
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		Leu	Ala	Ala		Phe	Ala	Asp	Ser		ser	Ser	Ser	Met		Val
189	1	-1			_ 5	•	_,		<b>~</b> 1	10	_	_	_	<b>a</b>	15	<b>a</b>
	Ser	Phe	Ala		Leu	His	Pne	Ala		GIĀ	Tyr	Leu	Pro	Ser	Asp	ser
192	<b>C1</b> ~	7 ~ ~	m	20	mh m	т1 -	т1.	Dwo	25	T 0.11	T 011	1701	71-	30	0	T 011
195	GIII	Asp	35	Arg	TIIL	TTE	116	40	Ата	Leu	Leu	Val	45	Val	Cys	ьeu
	W = 1	Clv		Wa l	Clv	λen	Lou		V = 1	Tlo	C1v	Tlo		Leu	Uic	Λen
		-			_			-			_	60			птэ	ASII
														Leu	Asn	Len
201	65	111	Lys	OI,	LJ 5	70	DCI	ricc	110	1115	75	Licu	110	LCu	11511	80
		Len	Δla	Asp	Len		Len	Len	Len	Phe		Δla	Pro	Ile	Ara	
204	001	200			85				204	90					95	
	Thr	Ala	Tvr	Ser		Ser	Val	Trp	Asp		Glv	Tro	Phe	Val		Lvs
207			-1-	100	-1-				105		1			110	-1-	-1 -
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210	. –		115	- L				120	<b>4</b> =				125			
	Ile	Val	Val	Val	Ala	Lys	Val		Phe	Met	Tyr	Ala	Ser	Asp	Pro	Ala
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216 145
218 Ile Trp Thr Val Ala Ser Leu Leu Pro Leu Pro Glu Trp Phe Phe Ser
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                                        170
221 Thr Ile Arg His His Glu Gly Val Glu Met Cys Leu Val Asp Val Pro
                                    185
               180
224 Ala Val Ala Glu Glu Phe Met Ser Met Phe Gly Lys Leu Tyr Pro Leu
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           195
227 Leu Ala Phe Gly Leu Pro Leu Phe Phe Ala Ser Phe Tyr Phe Trp Arg
                           215
230 Ala Tyr Asp Gln Cys Lys Lys Arg Gly Thr Lys Thr Gln Asn Leu Arg
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                                           235
233 Asn Gln Ile Arg Ser Lys Gln Val Thr Val Met Leu Leu Ser Ile Ala
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                                        250
236 Ile Ile Ser Ala Val Leu Trp Leu Pro Glu Trp Val Ala Trp Leu Trp
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                                    265
                                                        270
239 Val Trp His Leu Lys Ala Ala Gly Pro Ala Pro Pro Gln Gly Phe Ile
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                               280
242 Ala Leu Ser Gln Val Leu Met Phe Ser Ile Ser Ser Ala Asn Pro Leu
        290
                           295
245 Ile Phe Leu Val Met Ser Glu Glu Phe Arg Glu Gly Leu Lys Gly Val
246 305
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                                            315
248 Trp Lys Trp Met Ile Thr Lys Lys Pro Pro Thr Val Ser Glu Ser Gln
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251 Glu Thr Pro Ala Gly Asn Ser Glu Gly Leu Pro Asp Lys Val Pro Ser
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254 Pro Glu Ser Pro Ala Ser Ile Pro Glu Lys Glu Lys Pro Ser Ser Pro
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257 Ser Ser Gly Lys Gly Lys Thr Glu Lys Ala Glu Ile Pro Ile Leu Pro
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258 370
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260 Asp Val Glu Gln Phe Trp His Glu Arg Asp Thr Val Pro Ser Val Gln
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285 Asp Glu Asp Val Thr Asn Ser Arg Thr Phe Phe Ala Ala Lys Ile Val
288 Ile Gly Met Ala Leu Val Gly Ile Met Leu Val Cys Gly Ile Gly Asn
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289 65
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291 Phe Ile Phe Ile Ala Ala Leu Val Arg Tyr Lys Lys Leu Arg Asn Leu
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294 Thr Asn Leu Leu Ile Ala Asn Leu Ala Ile Ser Asp Phe Leu Val Ala
               100
                                   105
297 Ile Val Cys Cys Pro Phe Glu Met Asp Tyr Tyr Val Val Arg Gln Leu
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                               120
300 Ser Trp Glu His Gly His Val Leu Cys Thr Ser Val Asn Tyr Leu Arg
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303 Thr Val Ser Leu Tyr Val Ser Thr Asn Ala Leu Leu Ala Ile Ala Ile
304 145
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                                           155
306 Asp Arg Tyr Leu Ala Ile Val His Pro Leu Arg Pro Arg Met Lys Cys
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                                       170
309 Gln Thr Ala Thr Gly Leu Ile Ala Leu Val Trp Thr Val Ser Ile Leu
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                                   185
312 Ile Ala Ile Pro Ser Ala Tyr Phe Thr Thr Glu Thr Val Leu Val Ile
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                               200
                                                   205
315 Val Lys Ser Gln Glu Lys Ile Phe Cys Gly Gln Ile Trp Pro Val Asp
        210
                           215
318 Gln Gln Leu Tyr Tyr Lys Ser Tyr Phe Leu Phe Ile Phe Gly Ile Glu
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                                           235
321 Phe Val Gly Pro Val Val Thr Met Thr Leu Cys Tyr Ala Arg Ile Ser
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324 Arg Glu Leu Trp Phe Lys Ala Val Pro Gly Phe Gln Thr Glu Gln Ile
325
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                                   265
327 Arg Lys Arg Leu Arg Cys Arg Arg Lys Thr Val Leu Val Leu Met Cys
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330 Ile Leu Thr Ala Tyr Val Leu Cys Trp Ala Pro Phe Tyr Gly Phe Thr
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                                              300
333 Ile Val Arg Asp Phe Phe Pro Thr Val Phe Val Lys Glu Lys His Tyr
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                                           315
336 Leu Thr Ala Phe Tyr Ile Val Glu Cys Ile Ala Met Ser Asn Ser Met
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                                       330
339 Ile Asn Thr Leu Cys Phe Val Thr Val Lys Asn Asp Thr Val Lys Tyr
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                                   345
342 Phe Lys Lys Ile Met Leu Leu His Trp Lys Ala Ser Tyr Asn Gly Gly
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DATE: 04/08/2002 VERIFICATION SUMMARY TIME: 13:34:14 PATENT APPLICATION: US/10/088,726

Input Set : A:\EP.txt

Output Set: N:\CRF3\04082002\J088726.raw

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